Proposal #2001 - L-205 (Office Use **Only)**

# PSP Cover Sheet (Attach to the front of each proposal)

Proposal Title: ***LOWER BUTTE CREEK PROJECT: Phase III Facilitation/Coordination and Construction of Three Fish Passage Modifications to Sutter Bypass West Side Water Control Structures***


Applicant Name: Ducks Unlimited, Inc.
Contact Name: Olen Zirkle. Land and Water Specialist
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Amount of funding requested: **$4,983,719**
Some entities charge different costs dependent on the source of the funds. If it is different for state or federal funds list below.
State cost: (To be determined) Federal cost: (To be determined)

**Cost** share partners? __X__ **Yes** ____ No
Identify partners and amount contributed by each Butte Slough Irrigation Co.. Long Term O&M - $63.000
Packard Foundation - $200,000

Indicate the Topic for which you are applying (check **only** one).

- ___ Natural Flow Regimes
- ___ Nonnative Invasive Species
- ___ Channel Dynamics/Sediment Transport
- ___ Flood Management
- ___ Shallow Water Tidal/Marsh Habitat
- ___ Contaminants
- ___ Beyond the Riparian Corridor
- ___ Local Watershed Stewardship
- ___ Environmental Education
- ___ Special Status Species Surveys and Studies
- ___ Fishery Monitoring, Assessment and Research
- __X__ Fish Screens/Fish Ladders/ Weirs

What country or counties is the project located in? Sutter County

What **CALFED** ecozone **is** the project located in? See attached list and indicate number. Be as specific as possible.

Feather River and Sutter Basin: 8.4, (Sutter Bypass)

Indicate the type **of** applicant (check only one):

- ___ State agency
- ___ Public/Non-profit joint venture
- ___ Local government/district
- ___ University
- ___ Other: _____
- ___ Federal agency
- __X__ Non-profit
- ___ Tribes
- ___ Private party

**Indicate the primary species which the proposal addresses (check all that apply):**

___ San Joaquin and East-side Delta tributaries fall-run chinook salmon
__X Winter-run chinook salmon
__X Late-fall run chinook salmon
___ Delta smelt
__X Splittail
__X Green sturgeon
__X White Sturgeon
__X Waterfowl and Shorebirds
__X Migratory birds
__X Other listed T/E species: White Ibis, Aleutian Canada Goose, Giant Garter Snake, Elderberry, Long Horn Beetle

__X Spring-run chinook salmon
__X Fall-run chinook salmon
___ Longfin smelt
__X Steelhead trout
__X Striped bass
__X All chinook species
__X All anadromous salmonids
__X American shad

**Indicate the type of project (check only one):**

___ Research/Monitoring
___ Pilot/Demo Project
__X Full-scale Implementation
___ Watershed Planning
___ Education

**Is this a next-phase of an ongoing project?** Yes __X__ No ___

**Have you received funding from CALFED before?** Yes __X__ No ___
If yes, list project title and CALFED number:

| Project Name: | CALFED Number: |
|---|---|
| Lower Butte Creek Project: Phase II – Preliminary Engineering and Environmental Analysis for Butte Sink Structural Modifications and Flow-through System | 99-BO2 |
| Gorrill Dam Fish Screen | 96-M22 |
| M & T/Parrott, Pumping Station and Fish Screen | 95-M05 |
| Rancho Esquon/Adamas Dam Fish Screen | 96-M21 |
| San Pablo Bay NWR, Cullinan Ranch | 97-N18 |
| San Pablo Bay NWR, Tolay Creek | 97-N19 |

**Have you received funding from CVPIA before?** Yes __X__ No ___
If yes, list CVPIA program providing funding, project title and CVPIA number (if applicable):

| Project Name: | CVPIA Number: |
|---|---|
| Lower Butte Creek Project, Phase III – Butte Creek, Drumheller Exclusion Barrier Final Engineering, Permitting and Construction | 1448-11332-9J006 |
| Lower Butte Creek Project, Phase II – Butte Creek, Butte Sink/Sutter Bypass Stakeholder Coordination/Facilitation | 113329-9-5135 |
| Lower Butte Creek Project, Phase II – Butte Creek, Sutter Bypass East-West Diversion Dam Preliminary Engineering and Environmental Review | 113329-9-5122 |
| Lower Butte Creek Project, Phase II – Butte Creek, Sutter Bypass Weir #5 Preliminary Engineering and Environmental Review | 11332-9-5122 |
| Lower Butte Creek Project, Phase II – Butte Creek, Sutter Bypass Weir #3 Preliminary Engineering and Environmental Review | 113329-9-J136 |

**By signing below, the applicant declares the following:**

- The truthfulness of all representations in their proposal;
- The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity of organization); and
- The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section. .

Ducks Unlimited, Inc.
**Name of Applicant**

**Ronald A. Stromstad**
**Director of Operations**

**B. Executive Summary**

*Title of Project:* LOWER BUTTE CREEK PROJECT: Phase III FacilitatiodCoordination and Construction of Three Fish Passage Modification to Sutter Bypass West Side Water Control Structures

*Requested Amount:* $4,983,719

***Applicant:*** *DUCKS UNLIMITED, INC.*
3074 Gold Canal Drive
Rancho Cordova, CA 95670-6116

Olen Zirkle, Land and Water Specialist
Phone: (916) 852-2000 FAX: (916) 852-2200
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*Participants/Collaborators:* Ducks Unlimited, Inc., Butte Slough Irrigation Co. and Montgomery Watson

***Project Summary:*** The Lower Butte Creek Project is a next-phase funding project that is effectively implementing CALFED ERP Goals 1, 2, & 4 and fulfilling CVPIA Priorities. In a cooperative effort to recover and reverse the downward population trends of spring-run, winter-run chinook salmon, steelhead, and spilttail in the Sacramento River Basin, this project is implementing fish ladders, to increase critical fish passage to essential spawning and rearing habitat, and fish screens, to decrease mortality of juvenile out-migrants. These structures will modify three major water control structures within the Sutter Bypass reach of lower Butte Creek (Weir #3, #5 and East-West Diversion Weir), an east-side tributary to the Sacramento River. The fish ladders have been designed to be fully flexible over a wide range of flows with minimal adjustments and the fish screens have been engineered with tested and proven technology for long-term ease of maintenance and operations to ensure minimal ongoing human intervention. This project is an essential link to upper Butte Creek watershed restoration actions and Delta restoration actions as supports the connectivity between the two systems. The Sutter Bypass reach of Butte Creek is also a flood overflow conveyance channel for the Sacramento River and therefore is often a migratory corridor for all upper river salmonids including the winter-run chinook salmon.

***Location:*** Feather River and Sutter Basin Ecological Management Zone – 8.4 Sutter Bypass

***Type and Objective of Project:*** This project represents implementation of the construction of fish ladders and fish screens on three major water control structures located on lower Butte Creek. The objective of the project is to increase self-sustaining populations of spring-run and winter-run chinook salmon, steelhead and splittail by significantly improving accessibility to the natal holding and spawning areas in Butte Creek by eliminating barriers that delay, injure and/or increase mortality of migrating adult and increase entrainment of juvenile out-migrants.

***Approach:*** As part of ***an*** on-going watershed restoration program, this project is being achieved to fulfill the goals and objectives of the CALFED Ecosystem Restoration Program Plan, the USFWS Anadromous Fish Restoration Plan and CDFG Restoring Central Valley Streams: A Plan for Action. The project brings a diverse group of stakeholders, agencies and related entities together to work out mutually beneficial fisheries upgrades to the three water control structures (weirs) and diversions located in the lower reaches of Butte Creek. The project has proceeded through planning and design and is now ready to proceed to construction of fish ladders and screens. In coordination with the Butte Slough Action Committee, the Butte Slough Irrigation Company (owner/operator of the weirs) has contracted with Ducks Unlimited to manage the project including funding, construction oversight, and reporting. Ducks Unlimited has contracted with Montgomery Watson to design, permit and manage the construction process. All pre-construction activities, including final design and specifications, environmental compliance documentation, permitting and bidders assistance are scheduled to be completed by April 1,2001. Pending funding, construction will be spread over a two-year period.

***Hypotheses:*** Modification of three diversion structures in the Sutter Bypass reach of Butte Creek with state-of-the-art fish ladders and fish screens which conform with state and federal standards, will contribute'to the recovery of populations of federally and state listed spring-run and winter-run chinook salmon, steelhead and splittail.

***Uncertainties:*** Research has demonstrated that selective removal or modification of anthropogenic barriers that delay, injure, or entrain migratory fish, is an effective population recovery and management tool. However, due to the multitude of lethal and sub-lethal stressors in the migratory pathway, form the natal headwater reaches to the limits of ocean travel, it is impossible to accurately predict the incremental benefit of eliminating a single stressor.

***Expected Outcome:*** Improved fish passage and survival of adult and juvenile fish for spring-run, winter-run chinook salmon, steelhead and splittail while improving the efficiency and management of in-stream and diverted flows.

## C. Project Description

**1. Problem Statement:** Spring-run chinook salmon and steelhead must migrate through the Sutter Bypass to reach their natal holding and spawning areas in upper Butte Creek. Irrigation dams, diversions and water control devices within the Sutter Bypass either lack or have ineffective fish ladders, and none of the diversions are fitted with juvenile fish screens. The result is delay, injury and increased mortality of migrating adults and entrainment of juvenile out-migrants

**a. Problem:** Spring run chinook salmon once inhabited most of the east-side tributaries of the Sacramento-San Joaquin Valley and may have numbered 600,000 adults (CDFG, 1998). Access to much of the original holding and spawning habitat has been permanently eliminated, initially by early hydropower and agricultural diversion dams, and later by the major water supply and flood control dams. Within the last decade, wild persistent spring-run adult populations have declined to less than 1,300 fish, approximately 0.3% of their historic run sizes. Only three small east-side tributaries to the Sacramento River (Mill, Deer and Butte Creeks) continue to harbor wild persistent populations. Additionally, Butte Creek is also believed to support a small steelhead population. The Sutter Bypass reach of Butte Creek also serves as a major flood relief system, conveying all upper Sacramento River flows in excess of 30,000 cfs (CDWR, 1994). Thus, all upper Sacramento River migratory fish are potentially routed through the Sutter Bypass reach of Butte Creek, and include the federally and or state listed winter-run chinook salmon, steelhead and splittail (CDFG, 1999).

Recent restoration plans have identified structural modifications to Butte Creek dams and diversions as a top priority (CDFG, 1993; USFWS, 1997; ERPP, 1999). Concern for the impacts of Butte Creek diversion dams was first expressed in 1929 (Clark, 1929), followed by many other studies in the intervening years (Hallock, 1952; CDWR, 1976; JSA, 1992). More recent evaluations of the Sutter Bypass reach of Butte Creek have focused on technical evaluations of structural modifications and are the basis for the this proposal (JSA, 1998; JSA, 1999a, 1999 b; Montomery Watson, 1999)

**b. Conceptual Model:** Anadromous fish have defined migratory pathways to natal holding and spawning areas that are genetically predisposed and critical to their survival (Groves, et al., 1968; Quinn and Fresh, 1984). Anthropogenic interruptions to these migratory pathways have resulted in significant declines in anadromous fish populations leading to listing under federal and state endangered species acts (CDFG, 1990; CDFG, 1998; ERPP, 1999) . Irrigation dams and diversions comprise a major component of these migratory pathway interruptions in Butte Creek (Clark, 1929; Hallock, 1952, CDFG, 1993, U.S.F.W.S. 1997; ERPP, 1999). Elimination, or modification of irrigation dams and diversions will restore access to natal holding and spawning areas, and contribute to the recovery of federally and state listed anadromous fish populations in Butte Creek (CDFG, 1993, U.S.F.W.S. 1997; ERPP, 1999).

**c. Hypotheses being tested:** Modification of three diversion structures in the Sutter Bypass reach of Butte Creek (Weir #3, Weir #5, and East-West Diversion Weir), with state-of-the-art fish ladders and fish screens which conform with state and federal standards, will contribute to the recovery of populations of federally and state listed spring-run chinook salmon, steelhead, and splittail, and will benefit upper Sacramento River populations of state and federally listed winter and spring-run salmon and steelhead.

**Assumptions:**

- Butte Creek harbors a sustaining population of spring-run chinook salmon, a remnant population of steelhead, spawning and rearing habitat for splittail and is at times a migratory pathway for upper Sacramento River winter and spring-run chinook salmon and steelhead (CDFG, 1998; CDFG, 1999).
- This proposal which contributes to the recovery of Butte Creek federally and state listed anadromous fish species as well as splittail, addressed ERP Goal 1. – At-Risk Species and CVPIA

Anadromous Fish Limiting Factor #4 and #5, Blockage or reduced access to suitable habitat and unscreened or inadequately screened diversions.

- Improved access to stream habitat and reduction of losses at diversions of spring-run chinook salmon and steelhead is a CVPIA primary focus for FY 1999-2004, and specifically lists Butte Creek as one of the focus tributaries.
- Various studies, technical evaluations and restoration plans have identified Sutter Bypass Weir #3, Weir #5 and the East-West Diversion Weir, as contributing to the decline of spring-run chinook salmon and steelhead (CDFG, 1996; CDFG, 1998; JSA, 1998; JSA, 1999a, 1999b; Montgomery Watson, 1999).
- Implementation of federal and state standards for fish passageways and fish screens will reduce or eliminate impacts of diversion structures (Clay, 1961; Bell, 1973; Bates, 1992, CDFG, 1997; NMFS, 1997)
- Implementation of federal and state anadromous fish restoration plans for Butte Creek (CDFG, 1993; USFWS, 1997) was initiated in 1995. In upper Butte Creek, five diversions dams have been removed, five diversion dams have been modified with state-of-the-art fish screen and or fish ladders and 40 cfs of dedicated in-stream flows have been provided to enhance fish passage (Ward, pers. com.).

**d.** Adaptive Management: (1) Post-project monitoring will demonstrate structural conformity with state and federal standards for fish ladders and fish screens. Project proponent will be responsible to ensure that all structures meet the standards. (2) Operation and management of structures implemented by this project will be coordinated with existing and future Butte Creek restoration actions to ensure effective fish passage with particular emphasis upon watershed-wide management of acquired in-stream flows.

***e.*** Education Objectives: non-applicable.

**2.** Proposed Scope **of** Work

a. Location and/or Geographic Boundaries **of the** Project:

County: Sutter County
Ecozone: No. 8 Feather River and Sutter Basin Ecological Management Zone
No. 8.4 Sutter Bypass
Geographical Coordinates: Latitude 39"8'31" Longitude 21°49'52"
The center of the project is Weir #5 located approximately .5 miles downstream of the Hwy. 20 Bridge of the west channel of the Sutter Bypass. (See Attachment "A" – Map, Photos, Plans)

**b.** Approach: The Lower Butte Creek Project is a cooperative project that brings a diverse group of stakeholders, agencies and related entities together to work out mutually beneficial fisheries upgrades to the water control structures and diversions located within the Butte Slough and Sutter Bypass reaches of lower Butte Creek. The project has proceeded through Phases I and II (planning and design (JSA, 1998; JSA, 1999a, 1999b)) and is now ready to proceed to Phase III, construction. The Lower Butte Creek Steering Committee and the Butte Slough Action Committee will provide overall project oversight. Butte Slough Irrigation Company, owners and operators of the weirs have contracted with Ducks Unlimited to manage the Phase III process including funding, construction oversight, and reporting. Ducks Unlimited has contracted with Montgomery Watson to design, permit and manage the construction process. Final design and specifications, environmental compliance documentation, permitting and bidders assistance for all three construction sites are scheduled for completion by April 1,2001. Pending funding, actual construction will be spread over a two-year period. For the purposes of NEPA/CEQA compliance, the Bureau of Reclamation and Calif. Dept. of Fish and Game will be the federal and state lead agencies respectively.

### c. Monitoring and Assessment Plans:

**Construction Phase Monitoring**

The fish ladders and fish screens that will be constructed for this project must comply with standards set by the National Marine Fisheries Service and the California Dept. of Fish & Game (NMFS, 1997; CDFG 1997). Applicable standards for the fish screens include slot size, approach velocity, sweeping velocity and bypass characteristics, cleaning mechanism/cleaning interval, and structural integrity. Applicable standards for fish ladders include ladder entrance and exit characteristics, pool volume and energy dissipation, orifice characteristics and velocities, pool depths, weir heights, and stream flow versus ladder capacity. In order to meet the criteria set by the regulatory agencies, Montgomery Watson will test and evaluate each of the structures to ensure all are in compliance with the respective standards and will be responsible for any modification necessary to meet those standards prior to final completion and acceptance of the construction project.

**Monitoring Schedule:** As part of the regulatory compliance requirements for meeting structural criteria, on-site monitoring and assessment of all structural operations and functions will be conducted throughout construction activities and upon completion of the facilities.

**Monitoring Team:** Montgomery Watson and the USFWS Anadromous Fish Screen Program Technical Team

**Post Construction – On-going Monitoring**

Upon completion of the construction project, including demonstration of compliance with standards as set by NMFS and CDFG as included in the Construction Phase Monitoring above, ongoing monitoring will be conducted by the owner/operator in conformance with an operations agreement and operations manual. This agreement and manual will include specific obligations of the owner/operator to maintain and operate the structures to the original design standards as set by NMFS and CDFG.

**Monitoring Schedule:** During the imgation season, the weirs and facilities will be monitored at least daily. During the off season the ladder structures will be checked periodically and after storm flows that flood the Sutter Bypass and the facilities have subsided. The Operations and Maintenance Manual will also require that the owner/operator complete and maintain a daily record of each visit and have on file for review by state and federal agencies when requested.

**Monitoring Team:** Butte Slough Irrigation Company (owner/operator) in coordination with California Dept. of Fish & Game

### d. Data Handling and Storage:

Construction project electronic data will be handled and stored on a secure network and compiled on CD ROM at the Ducks Unlimited, Inc. Western Regional Office on request. All pertinent information gathered, evaluated and applied to the project will be kept in a permanent file at the Western Regional Office of Ducks Unlimited, Inc. and made available to CALFED upon request.

**Expected Products/Outcomes:**

- Environmental Compliance/Permit Documentation and Certification
- Monitoring Reports/Updates
- Final Project Report

- Presentation to CALFED Ecosystem Roundtable and site visit.

f. Work Schedule:

The Lower Butte Creek West Side Project is a construction project that will upgrade three major water control structures on the West Side of the Sutter Bypass. The structures are the East-West Diversion Weir, Weir #5 and Weir **#3.** Upgrades will include fish ladders, fish screens and modifications to the weir structures to make them more fish friendly and operationally efficient. Engineering, final designs, environmental compliance documentation, permitting and bidders assistance have been completed in a previously funded phase. All three of the weir upgrades can be constructed individually, however, for cost efficiency, they should be constructed as one project. Payment for construction management and project management will be quarterly. Payment for construction will be on a work progress basis. The subtasks and milestones are the same for all three structures. A detailed list of tasks, subtasks, start/finish dates, linkages and comments are attached as Attachment **"B".** Listed below is a brief description of inclusive tasks that also serve as milestones (Bolded) for the project:

***Year I:***

| | | |
|---|---|---|
| Subtask 1: | Solicit Bids from construction contractors. | April '02 - May 2001 |
| Subtask 2: | Award contact to winning bidder | June '01 |
| Subtask **3:** | Construction | July '02 - Dec '01 |
| Subtask 4: | Construction Management | April '02– Dec '01 |

***Year 2:***

| | | |
|---|---|---|
| Subtask 1: | Monitor and test facilities | January '02 – June '02 |
| Subtask 2: | Construction Management | January '02 – June *'02* |

Structure Deliverables:

| | |
|---|---|
| East West Diversion: | Deliverable: New fish ladder and weir; O&M Manual |
| Weir *#5:* | Deliverable: Fish ladder, fish screen and weir modifications; O&M Manuel |
| Weir #3 | Deliverable: Fish ladder, high/low flow weir modifications; O&M Manual |

As part of an ongoing process, a second and distinct request is included in the proposal. (Listed **as** Task ***5*** on detailed summary list Attachment **"B")**

The request is for funds to continue facilitation and coordination activities for the Lower Butte Creek Project. This important function, delivered by Ducks Unlimited and California Waterfowl Association, coordinates and facilitates all the diverse interests and requirements of the Lower Butte Creek Project stakeholders and the requirements of the associated resource and regulatory agencies. Projects and Milestones for the **FY 2001** period will be Completion of Guisti/Weir #1 design/permitting; Completion of the Sutter Bypass East Side Programmatic and Small pump Plan; Completion of the Butte Slough Small Pump analysis, and; Completion of the Drumheller Slough planning/permitting. Funding proposals will be written for construction and recommended additional planning, if needed, when the milestones are reached. Because completion dates and schedules are dependant on' other actions, payment will be quarterly in arrears on billable hours. Listed below are the Task 5. time frame and deliverables:

Subtask 1 Facilitation of Landowner Meetings: Schedule landowner/stakeholder meetings to develop Phase II & III strategies; develop agendas; record minutes; distribute correspondence, pertinent information and minutes to landownedstakeholder groups.

*Deliverable:* Meeting reports and minutes from landownedstakeholder meetings on Phase III projects.
*Timeframe:* April 1,2001 to March 31,2002

**Subtask 2. Facilitate cooperative meetings with federal state and local agencies and groups: Schedule** meetings with federal, state and local agencies/groups (Steering Committee) to discuss project issues and resolve conflicts; develop agendas; record minutes; distribute minutes and pertinent information to group.
*Deliverable:* Meeting reports and minutes from Steering Committee meetings.
*Timeframe:* April 1,2001 to March 31,2002

**Subtask 3: Funding Development: Develop** funding sources and write funding proposals to raise funding for proposed Phase III projects.
*Deliverable:* Funding proposals for Phase III projects.
*Timeframe:* April 1,2001 to March 31,2002

**g. Feasibility:**

**Authorities -** This project has the full support of the Lower Butte Creek Steering Committee, the Butte Slough Action Committee, the Butte Slough Irrigation Company and key landowners. Accessibility has been given by all landowners/operators and public agencies that have jurisdictions within the project area. All environmental compliance documentation is scheduled for completion before the construction and permitting applications begin. Permittingagencies, i.e., Calif. Dept. of Fish & Game, US. Army *Corps* of Engineers, Regional Water Quality Control Board and Calif. State Reclamation Board, are in support of the project with no constraints anticipated. **Timeliness of Project Completion:** Excellent

**Monitoring -** Monitoring of all project sites will be conducted concurrent with construction activities. Project monitoring will evaluate environmental compliance associated with in-stream and facility construction activities. Careful evaluations of the compiled data and observations will be made by the Technical Oversight Committee to ensure that construction meets all environmental compliance.
**Permits: N/A Constraints:** No anticipated constraints.

**Technical -** The features of the project have been designed to meet the current and anticipated demands of the facilities. The sizing and criteria for different species of fish have been incorporated in all the structures. The weir and ladder at the East-West Diversion Weir will allow fish passage through the facility at extreme conditions of water flow. Flows above the channel banks can be accommodated and the fish will have passage to upstream areas in Butte Creek. The weir will provide the capability to control flows within the channel and provide the necessary flows in both the east and west channels. The flow control is important because there are demands for various uses of the water. The flow conditions need to meet the flow conditions to meet fish passage both upstream and downstream. The demands for water during construction may be met through bypassing water in the system, if required. Irrigation demands may be met by pumping of. groundwater to supplement the available supply in the east or west channel. **Permits:** CESA Compliance, Streambed alteration permit, CWA SS401certification, ESA Consultation, CWA SS 404 permit, NMFS Consultation. **Permit(s) Current Status: In** Process **Constraints:** No anticipated constraints.

## D. Applicability to CALFED ERP Goals and Implementation Plan and CVPIA Priorities.

### 1. CALFED ERP GOALS:

*GOAL* 1: At-Risk Species – It is anticipated that this project will promote recovery of at-risk species, in particular spring-run and winter-run chinook salmon, steelhead trout, splittail and other species of concern, and contribute to the reversing of the downward population trends of non-listed native species, by reducing or eliminating delay and injury to Butte Creek adult fish by improving passage conditions and reducing entrainment in diversions for juvenile and larval fish.

*GOAL 2:* Ecosystem Processes and Biotic Communities - This project is expected to rehabilitate natural ecological processes that support natural aquatic and terrestrial biotic communities and life-cycle requirements by supporting a reliable streamflow. Streamflows support important ecological processes such as riparian comdors and invertebrate production and fish spawning, nutrient and organic transport and sediment transport and decomposition that replenish riverine aquatic habitats.

*GOAL* **4:** Habitats – This project will support conveyance of flows recently acquired for in-stream use that will support riverine and aquatic habitat complements fish screen and ladders. To support this restored habitat for juvenile fish, fish screens will be placed on Butte Creek diversions that will minimize entrainment during out-migration. Additional habitat will also be made available to a greater number of adult fish by improving fish passage with fish ladders.

**Note:** It is important to note that all these goals will be met by the implementation of this project and sustained with minimal human effort once the project has been completed. The fish ladders have been designed to be fully flexible over a wide range of flows with minimal adjustments and the fish screens have been engineered with tested and proven technology for long-term ease of maintenance and operations.

CVPIA Priorities: This project addresses priorities/considerations for spring-run, winter-run chinook salmon, steelhead trout and splittail and their associated habitats in the CVPIA focus area of Butte Creek.

This project will result in progress toward the following **Biological Resource Considerations** for the spring-run, winter-run chinook salmon, steelhead trout and splittail:

- Addresses fish passage as one of the major limitingiconstraining factors of Butte Creek – construction of three fish ladders.
- Addresses ecosystem, community, multiple-species benefits – increases availability of spawning and rearing habitat for species of special concern.
- Protects and restores natural habitats – reducesjuvenile mortality by constructing fish screens in natal rearing habitat.
- Addresses immediate and long-term benefits – fish ladders and fish screens will be operational within one year to provide immediate biological benefits. All structures are built using proven and existing technology that require minimal human intervention.

This project will result in progress toward the following **Implementation Considerations:**

- The project will be a continuing operational structure that will provide fish passage and protect against entrainment of fish.
- The project has satisfied all legal, regulatory and technical obstacles and will be conducted in a timely manner.
- The project has overwhelming local and state-wide support.
- The project is highly compatible with other plans and programs for fishery restoration and protection.

This project will result in progress in **Economic Considerations** by addressing the following:

- Supporting local agricultural irrigation districts while effectively protecting the fisheries in Butte Creek and the upper Sacramento River.

- By ensuring efficiency and ease of on-going operations and maintenance is part of the implementation process:

**2. Relationship to Other Ecosystem Restoration Projects:**

This project is an integral part of an overall ecosystem restoration program for the Butte Creek Watershed. Upland watershed restoration activities on public and private lands would be severely compromised if the lower reach as is being implemented under the California Department of Fish and Game, U.S. Fish and Wildlife Service and CALFED fishery restoration plans (CDFG, 1993; USFWS, 1997; ERPP, 1999). During the period from 1995 to the present, in the upper anadromous reaches of Butte Creek does not provide the connectivity to upstream spawning and rearing habitat so essential for survival of native anadromous salmonids resident to Butte Creek. Implementing the fish screen and fish ladders on three significant lower Butte Creek diversions will contribute significantly to the overall ecosystem health and abundance, 5 dams have been removed, 5 dams have been modified with state-of-art fish ladders, and 4 dams modified with state-of-the-art fish screens. Dedicated instream flows of 45 cubic feet per second have been acquired and 10 real-time internet accessible telemetry stations have been installed to protect and manage the instream flows from the headwaters to the Sacramento River at the lower end of the Sutter Bypass. In addition, 9 major technical and environmental evaluations of additional restoration plan(s) implementation actions in the Butte Sink and Sutter Bypass reaches of Butte Creek and the watershed have been completed (JSA, 1998; JSA, 1999 a-h). While three next-phase technical and environmental evaluations are in progress in the Butte Sink and Sutter Bypass (Ensign and Buckley, 1999; Borcalli and Assoc. 1999, CDWR, 2000). The Butte Creek Watershed Conservancy, a local stakeholder organized watershed group has completed a draft Existing Conditions Report (BCWC, 2000) and is in the process of completing a Watershed Management Strategy Report. In the aggregate in excess of twenty million dollars have been expended on these efforts to date, with their ultimate success and effectiveness dependent upon the completion of projects in the lower watershed, among which are the structures included in this project proposal. Sources of funding for the previously completed projects include CALFED Category III (Metropolitan Water District) and CVPIA, AFRP and AFSP.

**3. Requests for Next-Phase Funding:**

**See Attachment "C"**

**4. Previous Recipients of CALFED or CVPIA Funding:**

**See Attachment "C"**

**5. System-Wide Ecosystem Benefits:**

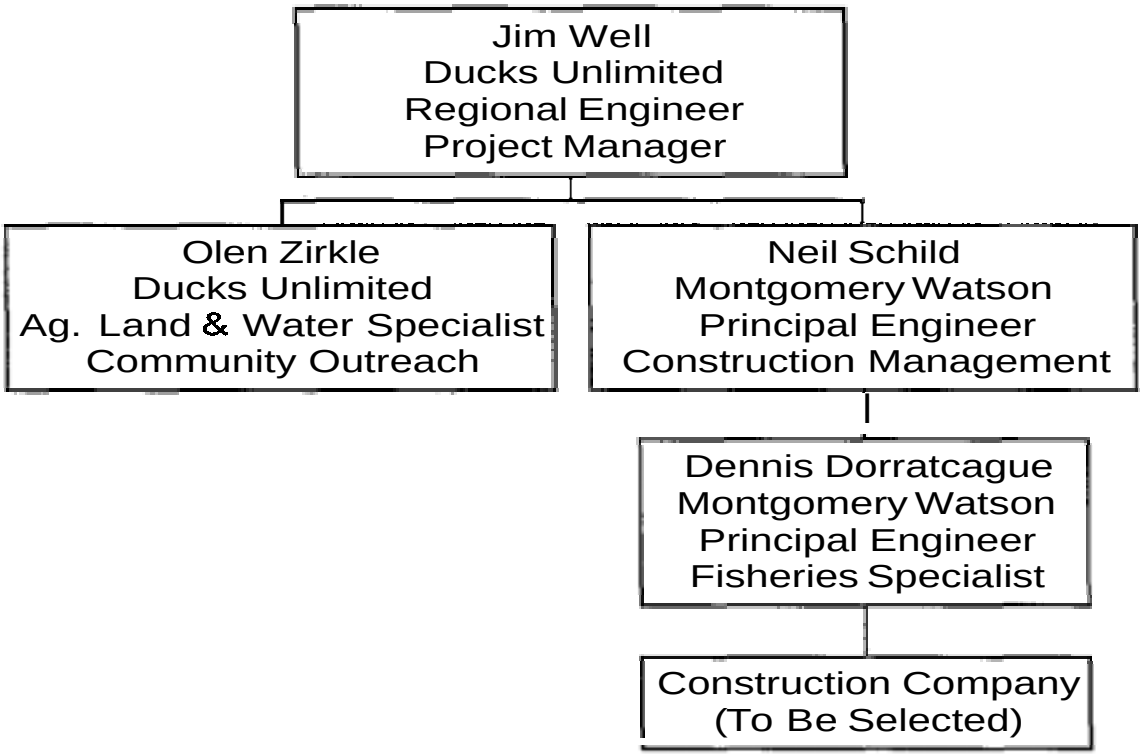
To reach the habitat goals of the Ecosystem Restoration Plan and the Anadromous Fish Restoration Plan for all salmonid species, connectivity to upstream spawning and rearing habitat in Butte Creek is essential to the sustainable populations of spring-run, winter-run, fall and late fall-run salmon and steelhead trout. Restoring this critical pathway is vital to the downstream restoration efforts (Sacramento River and the Delta) as well as upper watershed activities (see 2. Relationship to Other Ecosystem Restoration Projects, above).

**E. Qualifications**

# ORGANIZATION CHART

## Lower Butte Creek Project

***Phase III Facilitation/Coordination and Construction of three Fish Passage Modzjications to Sutter Bypass West Side Water Control Structures***




| Name * | Role/Responsibilty | Availability | Conflict of Interest | Comment |
|---|---|---|---|---|
| Jim Well | Engineer/Project Manager | Available as needed as required by Project | None | Ducks Unlimited Employee |
| Olen Zirkle | Project Oversight/Community Outreach | Available as needed as required by Project | None | Ducks Unlimited Employee |
| Neil Schild | Project Engineer/Construction Management | Available as needed as required by Project | None | Montgomery Watson Employee |
| Dennis Dorratcague | Design Engineer/Fisheries Specialist | Available as needed as required by Project | None | Montgomery Watson Employee |

* Detailed qualifications and contributions listed in Attachment D

F. Cost

1. Budget: (See Attachment "E" – Annual and Total Budget)

Salaries: DU's Salaries are divided into three classes. The executive class, the professional class and the technician class. Pay rate including FICA for each class corrected for inflation is as follows:

Executive: $55.00/hour Professional: $35.00 Technician: $24.00/hour

Tasks one, two and three are construction related tasks are requiring no salaries. Task 4, Project management contains 750 hours for engineering/construction oversight, including periodic site visits, review of plan modifications, invoices and preparation of reports and 200 hours for community outreach including facilitating meetings cooperating partners, funders and agencies both at the professional rate. 200 hours for contract compliance and reporting at the technician rate and 100 hours of executive oversight at the executive rate. All of the rates are charged a flat rate for benefits of 20%.

Travel: Travel for tasks one, two and three are included in the service contract number. Travel for Task 4 and 5 are includes mileage, meals and lodging. Travel is calculated at .325/per mile, meals at $10/day and lodging, including overnight stay at $200/day.

Supplies and expendables: DU calculates the supplies and expendables category using a flat rate of $20.00/hour adjusted for inflation. This rate is applied equally across all three classes of employees and includes compensation and fringe benefits for local administrative staff support, direct local office costs, and direct National Head Quarter's conservation support costs and were calculated using the Direct Allocation Method under the federal accounting regulations.

Service Contracts: Included within the service contract calculations is the cost of construction, construction management, start up cost and preparing an O&M manual. Construction management will be supplied by Montgomery Watson and is estimated at $270,000 for all three structures. Construction will be bid when funds are received and is estimated $3,765,300 for all three structures. Estimated costs for construction management and construction were split 80/20% for the two years of the project. Expense for start up cost and O&M manual was estimated at $135,000 and was included in year two.

Equipment: It is not anticipated that there will be any project related equipment other that that installed as part of the construction process uses.

Indirect over head rate: The indirect overhead rate has been approved by the Department of Agriculture with no modifications. The rate, 13.55% may be applied to all costs on the projects (including salary, materials, subcontract charges, etc.). The rate includes information service expenses, office services expenses, meeting and conference expense, government relations expenses and program G&A expenses. Full details of all allowable charges are on file at the Western Regional Office of Ducks Unlimited, Jnc.

Project Management: Project management will be supplied by Ducks Unlimited. Breakdowns of the costs are listed in the description of Salaries. Ducks Unlimited will be the project managers and will be responsible for overall coordination, on-site inspection for funding compliance, facilitation with the the stakeholders and agencies, programmatic and financial reporting.

2. Cost Sharing:

**A** gift from The David and Lucille Packard Foundation for fisheries restoration will allow Ducks Unlimited, Inc. to leverage $200,000 as a cost share for this project. The funds are dedicated to fish screen development and implementation.

*G.* Local Involvement - Public Outreach Plan

Identification **of** Outreach Area: Butte Slough and the Sutter Bypass (North/South Sections).

Identification **of** Key Stakeholders, Local Involvement and Interested Parties:

Lower Butte Creek Steering Committee – The committee consists of leaders from the local imgation and reclamation districts, appropriate state and federal resource agencies, water user constituency organizations, conservation groups and waterfowl organizations and sporting interests. The steering committee was created to provide guidance to the Lower Butte Creek Project and the project consultants. Responsibility: preliminary discussions, analysis and guidance on project issues, including project expectations, technical data collection, development of fact sheets and other documents, water issues, preliminary evaluation considerations for alternatives development and preliminary alternatives.

Butte Slough/Sutter Bypass Action Committee - The members of this committee represent interests within the south sections of the Lower Butte Creek Project area. Responsibility: facilitate discussions of preliminary ideas and concerns of the stakeholders regarding future project activities in their geographic area. Assist in implementation of final plan.

Background: The Lower Butte Creek Project was initiated and continues to be a stakeholder-driven grassroots effort focused on developing mutually, beneficial and acceptable alternatives to improve fish passage while maintaining the viability of agriculture, seasonal wetlands and other habitats. This project has been rewarded with continued success due to the constant outreach and on-the-ground contact through meetings, site visits and workshops with local government, local agency representatives, landowners and other interested parties conducted by a partnership between California Waterfowl Association and Ducks Unlimited, Inc. (DU), directed by DU staff. The outreach is structured to maximize the participation of local water users, resource agency, and natural resource advocacy stakeholders in the process of designing and accepting fish passage and water delivery alternatives. The Lower Butte Creek Steering Committee and the Butte Sink and Butte Slough/Sutter Bypass Action Committees were developed to accommodate all participants in the process. Furthermore, the Lower Butte Creek Project is a grassroots effort and, by design, relies heavily on the participation of local stakeholders and the information they provide (anecdotal or documented). To date, 125 participants have developed the project problem statements, concepts and alternatives, reported on existing conditions and discussed and resolved stakeholder issues and concerns, designed plans and specifications and satisfied environmental compliance on diversion structures, fish passage, land use, and habitats in and adjacent to the lower Butte Creek system.

Outreach Strategy: The project is ready to move to Phase III – Implementation/Construction. Planned and scheduled meetings will be organized and conducted in the same framework as the previous phases of the project outreach. The stakeholders are very committed to the process and support the identification of 15 structural modifications to water control structures. As part of the design and construction of these structures, a voluntary, Cooperative Management Plan will also be developed and implemented with the completion of certain facility upgrades. These adaptive management mechanisms will addresses physical problems of routing water through a series of channels that would improve fish passage through lower Butte Creek and decrease the opportunities for fish stranding while at the same time managing for waterfowl habitat and agriculture. This codification of serious commitment from participating landowners is key to the long-term operations and maintenance of the fish passage modifications. DU is committed to support this important outreach effort by facilitating landowner meetings and cooperative meetings with federal, state and local agencies and conservation groups axe planned to develop these important Cooperative Management Plans.

Outcome: Continued communications and information stream to local stakeholders, agency representative and interested groups and individuals regarding project plans, construction and management issues. Cooperative Management Plans that address cooperative long-term agreements that will support mutual commitment to long-term operations and maintenance of the water control structures and their fishery upgrades.

Third **Party** Impacts: None

**BUTTE** SLOUGH IRRIGATION CO., LTD.
P.O. Box 129
MERIDIAN, CALIFORNIA 95957

May 5,2000

CALFED BAY-DELTA **PROGRAM**
1416Ninth Street, Suite 1155
Sacramento, CA 95814

Dear Sirs:

I am the Manager of **Butte** Slough Irrigation Company, the owners and operators of Sutter Bypass East West Weir, Weir #5 and Weir #3. I have been contacted by and have participated in the preparation of the CALFED Proposal being submitted by Ducks Unlimited for the construction of fisheries upgrades to these water control structures and associated diversions. I and the Butte Slough Imgation Company Board of Directors fully support the proposed actions and look forward to participating in the project when approved for funding.

I understand that the Ducks Unlimited, their consultants and certain project-essential agency personnel will be visiting the construction sites for the purpose of implementing the proposed actions. I hereby grant access for this purpose provided that I receive adequate notice, which will not be unreasonably withheld. Further Butte Slough Irrigation Company has an agreement with Ducks Unlimited allowing access for all construction related activities.

I understand that the project will involve monitoring for certain project-related issues. I authorize that activity as part of the approved project.

Sincerely,

Ron Long
Manager
Butte Slough Irrigation Company

Stale of California THE RECLAMATION BOARD The Resources Agency

( ) Exploration
( ) Survey
(√) Construction

Project Name: Reclamation Board
RB Parcel Nos.: 140 and 145

TEMPORARY PERMIT
FOR ENTRY ONTO STATE OWNED LAND

Permission is hereby granted to the undersigned PERMITTEE to enter upon a portion of the property of the SACRAMENTO AND SAN JOAQUIN DRAINAGE DISTRICT, acting by and through The Reclamation Board of the State of California, hereinafter referred to as STATE, referenced above and shown on the attached drawing or description labeled Exhibit "A' in the County of Sutter, State of California. for the purpose of entering onto property to conduct surveys and to make modifications to the existing Weir 3 which may include the removal of the weir structure in its entirety as part of the Lower Butte Creek Project.

STATE hereby grants this non-assignable permit subject to the following terms and conditions:

1. This permit is made upon the express condition that the State of California is to be held harmless from all liability and claims for damages by reason of any injury to any person or persons including PERMITTEE, or property of any kind whatsoever and to whomsoever belonging, including PERMITTEE, from any cause or causes whatsoever while in, upon, or in any way connected with the Premises during the term of this permit or any occupancy hereunder, except those arising out of the sole negligence of STATE. PERMITTEE agrees to defend, indemnify and save harmless the State of California from all liability, loss, cost or obligation on account of or arising out of any such injury or loss, however occurring.

2. In the exercise of the rights herein granted, PERMITTEE is responsible for any damage, destruction or loss occurring to the property or facilities of STATE, its water contractors, lessees, licensees. permittees or other members of the public. PERMITTEE shall indemnify and save harmless STATE for all such damage, destruction or loss, or at the option of STATE, PERMITTEE shall repair or replace said property to the satisfaction of STATE.

3. All personal property, tools, or equipment taken onto or placed upon the permit property by PERMITTEE shall remain the personal property of PERMITTEE. Such personal property shall be promptly removed by PERMITTEE, at its sole risk and expense, upon the expiration of sooner termination of this permit. STATE does not accept any responsibility for any damage, including damage caused by flooding or theft. to any personal property, including any equipment, tools or machinery on the permit property.

4. STATE may terminate this permit without cause or fault at any time during the term of the permit.

5. PERMITTEE agrees to vacate the premises within twenty-four (24) hours in the event of emergency as determined by STATE.

6. PERMITTEE shall furnish to STATE a Certificate of Insurance at the time the permit is signed, stating that there is liability insurance presently in effect for PERMITTEE with bodily injury and property damage limits of not less than $1,000,000 per occurrence. The certificate of insurance will provide:

   a. That insurer will not cancel the insured's coverage without 30 days' prior written notice to STATE.

   b. That STATE, its officers, agents, employees and servants are included as additional named insureds. but only insofar as the operations under this permit are concerned.

   c. That STATE will not be responsible for any premiums or assessments on the policy.

   d. That premises included in this permit is covered by the policy.

   PERMITTEE agrees that the bodily injury liability insurance herein provided for shall be in effect at all times during the term of this permit. In the event said insurance coverage expires at any time or times during the term of this permit. PERMITTEE agrees to provide at least thirty (30) days prior to said expiration date, a new certificate of insurance evidencing insurance coverage as provided for herein for not less than the remainder of the term of the permit. In the event PERMITTEE fails to keep in effect at all times insurance coverage as herein provided, STATE may, in addition to any other remedies it may have, terminate this permit upon the occurrence of such event.

7 Special Conditions attached _X_ yes ___ no (Exhibit B)

PERMIT EXPIRES June 30, 2003

EXHIBIT B

**.SPECIAL** CONDITIONS

1. Permittee shall not alter or begin construction on the permitted premises until the following conditions have been met:

   a. Compliance **with** the requirements *of* the California Environmental Quality Act (CEQA).

   **b.** Obtain an approved encroachment permit from The Reclamation Board.

2. Permittee shall notify **the** Department of Water Resources by telephone at (916) 657-2831 at least **five (5)** working days prior to commencement *of* construction.

3. Permittee shall pay a non-refundable administrative fee **of $500** for **the** processing of the permit.

May 5,2000

CALFED BAY-DELTA PROGRAM
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

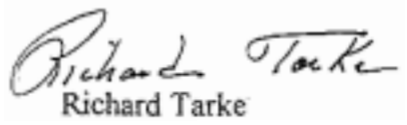
Dear Sirs:

I Richard Tarke of Tarke Bros. and Anderson am the owner of the property at the East West Diversion Weir. I have been contacted by and have participated in the preparation of the CALFED Proposal being submitted by Ducks Unlimited for the construction of fisheries upgrades to these water control structures and associated diversions. I and the Butte Slough Irrigation Company Board' of Directors fully support the proposed actions and look forward to participating in the project when approved for funding.

I understand that the Ducks Unlimited, their consultants and certain project-essential agency personnel will be visiting the construction sites for the purpose of implementing the proposed actions. I hereby grant access for this purpose provided that I receive adequate notice, which will not be unreasonably withheld. Further Tarke Bros. and Anderson has an agreement with Ducks Unlimited allowing access for all construction related activities.

I understand that the project will involve monitoring for certain project-related issues. I authorize that activity as part of the approved project.

Sincerely,



Richard Tarke
Tarke Bros. and Anderson

**ACKNOWLEDGMENT AND AUTHORIZAITON FOR RIGHT OF ENTRY**

I have read the attached request for Right of Entry for property located in the Butte *Sink.* I authorize Ducks Unlimited, Inc. the right to egress from such property for the purpose of gathering engineering and environmental data for engineering design, environmental compliance documentation, and permitting the construction of fish passage upgrades to East-West Diversion Weir.

Prior consent shall be required for such Right of Entry, which will not be unreasonably withheld.

Signed:

Richard Tarke

Richard Tarke. Landowner
Tarke Bros. and Anderson

May 8, 2000

Date

**ACKNOWLEDGMENT AND AUTHORIZAITON FOR RIGHT OF ENTRY**

I have read the attached request for Right of Entry for property located in the Butte Sink. I authorize Ducks Unlimited, Inc. the right to egress from such property for the purpose of gathering engineering and environmental data for engineering design, environmental compliance documentation, and permitting the construction of fish passage upgrades to Weir #5.

Prior consent shall be required for such Right of Entry, which will not be unreasonably withheld.

Signed:

Thomas Frye

Thomas Frye, Landowner

May 10, 2000

Date

**ACKNOWLEDGMENT AND AUTHORIZAITON FOR RIGHT OF ENTRY**

I have read the attached request for Right of Entry for property located in the Butte Sink. I authorize Ducks Unlimited, Inc. the right to egress from such property for the purpose of gathering engineering and environmental data for engineering design, environmental compliance documentation, and permitting the construction of fish passage upgrades to Weir #5.

Prior consent shall be required for such Right of Entry, which will not be unreasonably withheld.

Signed:

David Giampoli, Landowner
Frye & Giampoli

5-5-2004
Date

DUCKS UNLIMITED, INC.
WESTERN REGIONAL OFFICE
3074 Gold Canal Drive
Rancho Cordova, California 95670-6116
(916) 852-2000
(916) 852-2200 Fax

May 11,2000

Curtis R. Coad
Assistant County Administrative Officer
Sutter County Administrative Office
1160 Civic Center Blvd.
Yuba City, CA 95993

Dear Mr. Coad:

Ducks Unlimited is participating in this year's CALFED Proposal Solicitation Program for Ecosystem Restoration Projects and Programs. As stated in the Solicitation Package, we are required to notify the county in which the project is'located and supply a copy of the proposal.

We are pleased to submit a copy of our proposal titled: "LOWER BUTTE CREEK PROJECT: Phase III FacilitatiodCoordination and Construction of Three Fish Passage Modifications to Sutter Bypass West Side Water Control Structures". This proposal requests funds to construct fish screens, fish ladders and weir upgrades to the aforementioned weirs located in the west borrow channel of the Sutter Bypass.

If approved, construction of the fisheries upgrades will commence during the summer.and fall of 2001. Contracts for final design, environmental compliance documentation and permitting have been let and the work will be completed this year.

If you have any questions or concerns regarding the CALFED process or the proposed construction project, please feel free to call.

Sincerely,

Olen Zirkle
Land and Water Specialist

DUCKS UNLIMITED, INC.
WESTERN REGIOXALOFFICE
3074 Gold Canal Drive
Rancho Cordova. California 95670-6116
(916) *852-2000*
(916) *852-2200* Fax

May 11,2000

Clerk of the Board of Supervisors
Sutter County Administrative Office
1160 Civic Center Blvd.
Yuba City, CA **95993**

Madam Clerk

Ducks Unlimited is participating in this year's CALFED Proposal Solicitation Program for Ecosystem Restoration Projects and Programs. **As** stated in the Solicitation Package, we are required to notify the clerk of the Board of Supervisors of the county in which the project is located and supply a copy of the proposal.

We are pleased to submit a copy of our proposal titled: "LOWER BUTTE CREEK PROJECT: Phase III FacilitatiodCoordination and Construction of Three Fish Passage Modifications to Sutter Bypass West Side Water Control Structures". This proposal requests funds to construct fish screens, fish ladders and weir upgrades to the aforementioned weirs located in the west borrow channel of the Sutter Bypass.

If approved, construction of the fisheries upgrades will commence during the summer and fall of 2001. Contracts for final design, environmental compliance documentation and permitting have been let and the work will be completed this year.

If you have any questions or concerns regarding the CALFED process or the proposed construction project, please feel free to call.

Sincerely,

Olen Zirkle
Land and Water Specialist

# Environmental Compliance Checklist

***LOWER BUTTE CREEK PROJECT: Phase III Facilitation/Coordination and Construction of Three Fish Passage Modifications to Sutter Bypass West Side Water Control Structures***

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. ***Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.***

1. **Do** any **of** the actions included in the proposal require compliance with either the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), or both?

   X
   YES  NO

2. If you answered yes to **#1,** identify the lead governmental agency for CEQA/NEPA compliance.

   Bureau of Reclamation — Lead Federal Agency
   California Department of Fish and Game — Lead State Agency

3. If you answered **no** to **#1,** explain why CEQA/NEPA compliance is not required for the actions in the proposal.

   N/A

4. If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws. Describe where the project is in the compliance process and the expected date of completion.

   Jones & Stokes Associates is currently completing environmental documentation for this project.

5. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?

   X
   YES  NO

   If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with **30** days of notification of approval.

**6. Please indicate what permits or other approvals may be required for the activities contained in your proposal. Check all boxes that apply.**

**LOCAL**

| | | |
|---|---|---|
| Conditional use permit | ___ | |
| Variance | ___ | |
| Subdivision Map Act approval | ___ | |
| Grading permit | ___ | |
| General plan amendment | ___ | |
| Specific plan approval | ___ | |
| Rezone | ___ | |
| Williamson Act Contract cancellation | ___ | |
| Other_____ (Please Specify) | | |
| None required | X | |

**STATE**

| | | |
|---|---|---|
| CESA Compliance | X | (CDFG) |
| Streambed alteration permit | X | (CDFG) |
| CWA § 401 certification | X | (RWQ CB) |
| Coastal development permit | ___ | (Coastal Commission/BCDC) |
| Reclamation Board approval | X | |
| Notification | ___ | (DPC, BCDC) |
| Other _____ (please specify) | | |
| None required | ___ | |

**FEDERAL**

| | | |
|---|---|---|
| ESA Consultation | X | (USFWS) |
| Rivers & Harbors Act permit | ___ | (ACOE) |
| CWA § 404 permit | X | (ACOE) |
| Other: NMFS – National Marine Fisheries Service Consultation (please specify) | X | |
| None required | ___ | |

DPC = Delta Protection Commission
CWA = Clean Water Act
CESA = California Endangered Species Act
USFWS = U.S. Fish and Wildlife Service
ACOE = U.S. Army *Corps* of Engineers

ESA = Endangered Species Act
CDFG = California Department of Fish and Game
RWQCB = Regional Water Quality Control Board
BCDC = Bay Conservation and Development Comm.

# Land Use Checklist

***LOWER BUTTE CREEK PROJECT: Phase 111 FacilitatiodCoordination and Construction of Three Fish Passage Modifications to Sutter Bypass WestSide Water Control Structures***

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

**1.** Do the actions in the proposal involve physical changes to the land (i.e. grading, planting vegetation, or breeching levees) or restrictions in land use (i.e. conservation easement or placement **of** land in a wildlife refuge)?

_____ YES  **X** NO

**2.** If **NO** to #1, explain what type **of** actions are involved in the proposal (i.e., research only, planning only).

Reconstruction of fish screens and ladders and upgrading weirs

**3.** If YES to **#1,** what is the proposed land use change or restriction under the proposal?

**N/A**

**4.** If YES **to** #1, is the land currently under a Williamson Act contract? N/A

N/A YES  N/A NO

5. If YES to #1, answer the following:

Current land use N/A
Current zoning N/A
Current general plan designation N/A

***6.*** If YES **to** #1, is the land classified as Prime Farmland, Farmland **of** Statewide Importance **or** Unique Farmland **on** the Department **of** Conservation Important Farmland Maps?

N/A YES  N/A NO  N/A DON'T KNOW

7. If **YES** to #1, how many acres **of** land will **be** subject to physical change or land **use** restrictions under the proposal?

N/A

8. If **YES** to #1, is the property currently being commercially farmed or grazed?

| | |
|---|---|
| N/A | N/A |
| YES | NO |

9. If **YES** to ***#8,*** what are: the number of employees/acre N/A
the total number of employees N/A

10. Will the applicant acquire any interest in land under the proposal **(fee** title or a conservation easement)?

| | |
|---|---|
| _____ | **X** |
| YES | NO |

11. What entity/organization will hold the interest? N/A

12. **If YES** to #10, answer the following:

| | |
|---|---|
| Total number of acres to be acquired under proposal | N/A |
| Number of acres to be acquired in fee | N/A |
| Number of acres to be subject to conservation easement | N/A |

13. For all proposals involving physical changes to the land or restriction in land **use,** describe what entity or organization will:

| | |
|---|---|
| Manage the property: | N/A |
| Provide operations and maintenance service: | N/A |
| Conduct monitoring: | N/A |

14. For land acquisitions **(fee** title or easements), will existing water rights also be acquired?

| | |
|---|---|
| N/A | N/A |
| YES | NO |

15. **Does** the applicant propose any modifications to the water right or change in the delivery **of** the water?

| | |
|---|---|
| _____ | **X** |
| YES | NO |

16. **If YES** to **#15,** describe: N/A

# STATE **AND** FEDERAL FORMS

***LOWER BUTTE CREEK PROJECT:***
***Phase 111 Facilitation/Coordination and Construction of Three Fish Passage Modifications to Sutter Bypass West Side Water Control Structures***

## STATE **FORMS:**

1. Nondiscrimination Compliance Statement – ATTACHED
   (for public, private and nonprofit applicants only)

2. Proof of Contractors License – (To be submitted when **a** Contractor **is** hired for this project)
   (for private and nonprofit applicants proposing construction projects)

3. Non-collusion Affidavit – ***(To*** be submitted when a Contractor is hired for this project)
   (for public, private and non-profit applicants proposing construction projects)

***4.*** Bidders Bond - **(To** be submitted when a Contractor is hired for this project)
   (for private and non-profit applicants proposing construction projects)

**5.** Payment Bond - ***(To*** be submitted when a Contractor is hired for this project)
   (for private and non-profit applicants proposing construction projects)

***6.*** Performance Bond - (To be submitted when a Contractor is hired for this project)
   (for private and non-profit applicants proposing construction projects)

## FEDERAL **FORMS:**

1. Standard 424 – ATTACHED
   (for all applicants except federal agencies)

2. Assurances - Construction Programs - ATTACHED

STATE OF CALIFORNIA

# NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-95)

**LOWER BUTTE CREEK PROJECT: Phase III Facilitation/Coordination and Construction of Three Fish Passage Modifcations to Sutter Bypass West Side Water Control Structures**

CWPANY NAME

Ducks Unlimited, Inc.

The company named above (herinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Govemment Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division **4,** Chapter ***5*** in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), medical condition (cancer), age (over 40), marital status, denial of family care leave and denial of pregnancy disability leave.

## CERTIFICATION

***I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I amfully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.***

OFFICIAL'SNAME

Ronald A. Stromstad

DATEEXECUTED

4/26/00

EXECUTED IN THE COUNTY OF

Sacramento

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE

Director of Operations

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESSNAME

Ducks Unlimited, Inc.

# APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

| | | | |
|---|---|---|---|
| | 2 DATE SUBMITTED: 5/15/00 | | Applicant Identifier: N/A |
| 1. TYPE OF SUBMISSION: Application [X] Construction [ ] Non-Construction; Preapplication [ ] construction [ ] Non-Construction | 3 DATE RECENED BY STATE | | State Application Identifier: N/A |
| | 4. DATE RECENED BY FEDERAL AGENCY | | Federal Identifier |

**5.** APPLICANT INFORMATION

| | |
|---|---|
| Legal Name: **Ducks Unlimited, Inc.** | Organizational Unit: **Western Regional Office** |
| Address (give *city, county,* State, *and zip code*): *3074* **Gold Canal Drive,** Rancho **Cordova, CA** *95670* | Name and telephone number **of** person to be contacted on matters involving this application *(give area code)*: **Olen Zirkle (916)852-2000** |
| 6. EMPLOYER IDENTIFICATION NUMBER *(EIN)*: — 5 6 4 3 7 9 9 | 7. TYPE OF APPLICANT: *(enter appropriate letter in box)* [N] |

A. State; B. County; C. Municipal; D. Township; E. Interstate; F. Intermunicipal; G. Special District; H. Independent School Dist.; I. State Controlled Institution of Higher Learning; J. Private University; K. Indian Tribe; L. Individual; M. Profit Organization; N. Other (Specify) Non-Profit

**8.** TYPE OF APPLICATION

[X] New [ ] Continuation [ ] Revision

If Revision, enter appropriate letter(s) in box(es) [ ] [ ]

A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other(specify):

**9.** NAME OF FEDERAL AGENCY: **Bureau of Reclamation**

**10.** CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: [ ][ ]-[ ][ ][ ]

TITLE:

**11.** DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: **LOWER BUTTE CREEK PROJECT: Phase III Facilitation/Coordination and Construction of Three Fish Passage Modifications to Sutter Bypass West Side Water Control Structures**

**12.** AREAS AFFECTED BY PROJECT *(Cities,* Counties, States. etc.): **Sutter County, California**

| 13. PROPPSED PROJECT | | **14.** CONGRESSIONAL DISTRICTS **O F** | |
|---|---|---|---|
| Start Date: 4/1/01 | Ending Date: 3/31/04 | a. Applicant: 4th District | b. Project: 2nd District |

**15.** ESTIMATED FUNDING:

| | |
|---|---|
| a. Federal | $ 4,783,719.00 |
| b. Applicant | $ .00 |
| c. State | $ .00 |
| d. Local | $ .00 |
| e. Other | $ 200,000.00 |
| f. Program Income | $ .00 |
| g. TOTAL | $ 4,983,719.00 |

16. **IS** APPLICATION SUBJECT **TO** REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:

DATE _____

b. No. [ ] PROGRAM IS NOT COVERED BY E. 0.12372 [ ] OR PROGRAM HAS NOT BEEN SELECTED BY STATE **FOR** REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

[ ] Yes If "Yes," attach an explanation. [X] No

**18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.**

| a. Type Name of Authorized Representative | b. Title | c. Telephone Number |
|---|---|---|
| Ronald A. Stromstad | Director of Operations | (916)852-2000 |
| d. Signature of Authorized Representative | | e. Date Signed: 5-15-00 |

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Standard Form 424 (Rev. 7-97)
Prescribed by OMB Circular **A-102**

OMB Approval No. 0348-004

## BUDGET INFORMATION - Construction Programs

NOJE: Certain Federal *assistance* programs *require additional computations* lo arrive at the Federal share of project costs eligible *for participation. If such is* the *case, you* will be *notified.*

| COST CLASSIFICATION | a. Total Cost | b. Costs Not Allowable for Participation | c. Total Allowable Costs (Columns a-b) |
|---|---|---|---|
| 1. Administrative and legal expenses Proj. Mgmt. Facil./Coord. | $ 196,208 .00 | $ .00 | $ 126,208 .00 |
| 2. Land, structures, rights-of-way. appraisals, etc. | $ 22,500 .00 | $ .00 | $ 22,500 .00 |
| 3. Relocation expenses and payments | $ None .00 | $ .00 | $ .00 |
| 4. Architectural and engineering fees | $ Paid .00 | $ .00 | $ .00 |
| 5. Other architectural and engineering fees | $ Paid .00 | $ .00 | $ .00 |
| 6. Project inspection fees CM | $ 270,000 .00 | $ .00 | $ 270,000 .00 |
| 7. Site work | $ 1,309,059 .00 | $ .00 | $ 1,309,059 .00 |
| 8. Demolition and removal | $ 32,680 .00 | $ .00 | $ 32,680 .00 |
| 9. Construction | $ 2,273,561 .00 | $ .00 | $ 2,273,561 .00 |
| 10. Equipment | $ 150,000 .00 | $ .00 | $ 150,000 .00 |
| 11. Miscellaneous Start-up/O&M Manual | $ 135,000 .00 | $ .00 | $ 135,000 .00 |
| 12. SUBTOTAL (sum *of lines 7-11)* | $ 4,389,008 .00 | $ .00 | $ 4,389,008 .00 |
| 13. Contingencies Indirect Overhaed @ 13.55% | $ 594,711 .00 | $ .00 | $ 594,711 .00 |
| 14. SUBTOTAL | $ 4,983,719 .00 | $ .00 | $ 4,983,719 .00 |
| 15. Project (program) income Packard Fund | $ 200,000 .00 | $ .00 | $ 200,000 .00 |
| 16. TOTAL PROJECT COSTS *(subtract #15* from *#14)* | $ 4,783,719 .00 | $ .00 | $ 4,783,719 .00 |

FEDERAL FUNDING

| | | |
|---|---|---|
| 17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share. | Enter eligible costs from line 16c Multiply X 100 % | $ 4,783,719 .00 |

OMB Approval No. 0348-0042

## ASSURANCES - CONSTRUCTION PROGRAMS



**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

**NOTE** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.

2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate. the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.

3. Will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the. site and facilities without permission and instructions from the awarding agency. Will record the Federal interest in the title of real properly in accordance with awarding agency directives and will include a covenant in the title of real property aquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.

4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.

5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or State.

6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).

9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C.§§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps: (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (9 the Comprehensive Alcohol Abuse and Alcoholism Prevention. Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made: and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.

14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514: (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955. as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties). and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 etseq.).

18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

| SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL | TITLE |
|---|---|
| Ronald A. Stromstad | Director of Operations |
| APPLICANT ORGANIZATION | DATE SUBMITTED |
| Ducks Unlimited, Inc. | 5-12-99 |

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**Personal Communication**

Paul Ward, Associate Fishery Biologist. California Department of Fish and Game, Sacramento Valley Central Sierra Region, May 4,2000.

**ATTACHMENT "B"**

**DUCKS UNLIMITED FY 2000 CALFED PROJECT PROPOSAL –** LOWER BUTTE CREEK PROJECT: Phase III Facilitation/Coordination and Construction of Three Fish Passage Modifications to Sutter Bypass West Side Water Control Structures

| Year | Task | Task Description | Start/Finish Date | Linkage | Comments |
|---|---|---|---|---|---|
| | 1.0 | Upgrade East-West Weir for Fish Passage | April '01 to June '02 | Tied to approval of funding application | Engineering, final plans and specifications, environmental docs and permits completed |
| Year 1: | Subtask 1.1.1 | Solicit bids | April-May '01 | independent | |
| | Subtask 1.1.2 | Award contract | June '01 | Task 1.1.1 | |
| | Subtask 1.1.3 | Construction | July '01 to Feb '02 | Task 1.1.2 | |
| | Subtask 1.1.4 | Construction Management | July '01 - June'02 | Task 1.1.1 –1.1.3 | |
| Year 2: | Subtask 1.2.1 | Monitor and test facilities | Mar '02 to June '02 | Independent | |
| | 2.0 | Upgrade Weir #5 for Fish Passage | April '01 to June '02 | Tied to approval of funding application | Engineering, final plans and specifications, environmental docs and permits completed |
| Year 1: | Subtask 2.1.1 | Solicit bids | April May '01 | Independent | |
| | Subtask 2.1.2 | Award contract | June '01 | Task 2.1.1 | |
| | Subtask 2.1.3 | Construction | July '01 - June'02 | Task 2.1.2 | |
| | Subtask 2.1.4 | Construction Management | April '01 - June '02 | Task 2.1.1. – 2.1.3 | |
| Year 2: | Subtask 2.2.1 | Monitor and test facilities | June '02 to Dec '03 | Independent | |
| | 3.0 | Upgrade Weir #3 for Fish Passage | April '01 to June '02 | Tied to approval of funding application | Engineering, final plans and specifications, environmental docs and permits completed |
| Year 1: | Subtask 3.1.1 | Solicit bids | April May '01 | Independent | |
| | Subtask 3.1.2 | Award contract | June '01 | Task 3.1.1 | |
| | Subtask 3.1.3 | Construction | July '01 to Dec '01 | Task 3.1.2 | |
| | Subtask 3.1.4 | Construction Management | April '01 - June '02 | Task 3.1.1 – 3.1.3 | |
| Year 2: | Subtask 3.2.1 | Monitor and test facilities | Jan '02 to June '02 | Independent | |
| | 4.0 | Project Management | | Tied to approval of funding application | |
| Year 1: | Subtask4.1.1 | Construction oversight | April '01-Dec '01 | Tasks 1, 2 and 3 | |
| | Subtask 4.1.2 | Programmatic oversight | April '01-March '02 | Tasks 1, 2 and 3 | |
| | Subtask 4.1.3 | Financial and programmatic reporting | April '01- March '02 | Tasks 1, 2 and 3 | Includes engineering oversight, programmatic oversight and financial oversight |
| Year 2: | Subtask 4.2.1 | Construction oversight | April '02-June '02 | Tasks 1, 2 and 3 | |
| | Subtask 4.2.2 | Programmatic oversight | April '02-Dec '02 | Tasks 1, 2 and 3 | |
| | Subtask 4.2.3 | Financial and programmatic reporting | April '02-Dec '02 | Tasks 1, 2 and 3 | Final report and contract |
| | 5.0 | Lower Butte Creek Facilitation/Coordination | April '01- March '02 | Tied to approval of funding application | Overall project outreach, coordination of multiple efforts, Coordination of agency input |
| Year 1: | Subtask 5.1.1 | Facilitation of Landowner meetings | On-going | Task 5 | Meet with landowners and operators on project issues and concerns |
| | Subtask 5.1.2 | Facilitate cooperative meetings with federal state and local agencies and groups | On-going | TaskS.1.1 | Bring together federal , state and local agencies and groups to discuss project issues and reach consensus on issues |
| | Subtask 5.1.3 | Funding development/proposals – CVPIA/CALFED, Other | On-going | Tasks 5.1.1, 5.1.2 | Write FY 2002 CVPIA, CALFED PSP and other public/private funding applications |

## Attachment " C " Summary of ecological/biological objectives, associated hypothesis and monitoring parameters and approaches

**1) Biological/Ecological Objective:** Increase chinook salmon, steelhead, and splittail survival within the Sutter Bypass, by reducing or eliminating delay and injury to Butte Creek adult fish and by improving passage conditions and reducing entrainment in diversions for juvenile and larval fish from Butte Creek and the Sacramento River under controlled-flow conditions while maintaining the viability of associated managed wetlands and agricultural operations.

| Question to be evaluated/Hypothesis | Monitoring Parameter and Data Collection | Data Evaluation Approach | Comments |
|---|---|---|---|
| Can the west side of the Sutter Bypass, extending from the E-W Diversion Weir downstream to the intersection of the Tisdale Bypass be screened, hydraulically configured and operated to reduce delay of adult fish and entrainment of juvenile fish to a level acceptable under ESA/CESA, for chinook salmon, steelhead and Sacramento split-tail during controlled-flow conditions? | Monitor enhanced structures during time fish are present and diversions *are* occurring for adult fish passage and juvenile entrainment. Collect data on adult fish delays and juvenile entrainment. | Evaluate data on operational capabilities of screens and ladders, recommend final structural modifications and management procedures for each of the enhanced structures to optimize operations and meet ESA/CESA requirements. | Study Priority and status: High Priority, Included in Existing Plans<br><br>AFRP Action # 19 and 23<br><br>AFRP Evaluation #2, 4, 6, 7, 9, 10 and 11. |

| Project Name: | CALFED Number: | Financial Status | | Current Status |
|---|---|---|---|---|
| Lower Butte Creek Project: Phase II – Preliminary Engineering and Environmental Analysis for Butte Sink Structural Modifications and Flow-through System | 99-BO2 | Expenditure:<br>Income:<br>Ducks Unlimited Inc.: | $35,549.83<br>$25,621.22<br>$9,928.61 | Ongoing<br>Consultants hired<br>Kick off meeting completed<br>Field work on design in progress |
| Gorrill Dam Fish Screen | 96-M22 | Expenditure:<br>Income:<br>Ducks Unlimited Inc.: | $1,548,907.86<br>$1,523.047.43<br>$25,860.43 | Monitoring |
| M & T/Parrott, Pumping Station and Fish Screen | 95-M05 | Expenditure:<br>Income:<br>Ducks Unlimited Inc.: | $4,749,845.92<br>$4,530,556.71<br>$219,289.21 | Complete |
| Rancho Esquon/Adamas Dam Fish Screen | 96-M21 | Expenditure:<br>Income:<br>Ducks Unlimited Inc.: | $1,151,326.33<br>$1,034,780.62<br>$116,545.71 | Monitoring |

| Project Name: | CVPIA Number: | Financial Status | | Current Status |
|---|---|---|---|---|
| Lower Butte Creek Project, Phase III – Butte Creek, Drumheller Exclusion Barrier Final Engineering, Permitting and Construction | 1448-11332-9J006 | Expenditure:<br>Income:<br>Ducks Unlimited Inc.: | $0<br>$0<br>$0 | Engineering Consultant hired<br>Field work in progress |
| Lower Butte Creek Project, Phase II – Butte Creek, Butte Sink/Sutter Bypass Stakeholder Coordination/Facilitation | 113329-9-J135 | Expenditure:<br>Income:<br>Ducks Unlimited Inc.: | $44,419.82<br>$44,436.11<br>$16.29 | Ongoing |
| Lower Butte Creek Project, Phase II – Butte Creek, Sutter Bypass East-West Diversion Dam Preliminary Engineering and Environmental Review | 113329-9-J122 | Expenditure:<br>Income:<br>Ducks Unlimited Inc.: | $145,667.45<br>$107,074.95<br>$38,592.50 | Preliminary designs complete<br>Environmental review started |
| Lower Butte Creek Project, Phase II – Butte Creek, Sutter Bypass Weir #5 Preliminary Engineering and Environmental Review | 11332-9-J122 | Expenditure:<br>Income:<br>Ducks Unlimited Inc.: | $145,667.45<br>$107,074.95<br>$38,592.50 | Preliminary designs complete<br>Environmental review started |
| Lower Butte Creek Project, Phase II – Butte Creek, Sutter Bypass Weir #3 Preliminary Engineering and Environmental Review | 113329-9-J136 | Expenditure:<br>Income:<br>Ducks Unlimited Inc.: | $145,667.45<br>$107,074.95<br>$38,592.50 | Preliminary designs complete<br>Environmental review started |

Attachment D

# STATEMENT OF QUALIFICATIONS

Ducks Unlimited, **Inc.** Staff:

Olen **C.** Zirkle, Jr. Mr. Zirkle brings a diverse background to Ducks Unlimited. Educated at U.C. Davis, earning a Bachelor of Science degree in Ag-Production/Agronomy, he has spent a lengthy career working with agriculture on operational and management issues. Mr. Zirkle is currently employed by Ducks Unlimited as an Agricultural Lands and Water Specialist where he manages both the Lower Butte Creek Project and the Sutter Basin Agricultural Easement Project. He recently completed a three and one-half year contract with The Nature Conservancy where he managed their Ricelands Habitat Project and initiated and implemented Phase I of the Lower Butte Creek Project. Mr. Zirkle may be reached at the Western Regional Office at 3074 Gold Canal Drive, Rancho Cordova CA 95670-6116; Phone: (916) 852-2000; Fax: (916) 852-2200; e-mail: ozirkle@ducks.org.

Relevant Experience

Mr. Zirkle has spent his entire career working in agriculture in managerial and technical positions. Educated as an agronomist, he worked for 16 years with Spreckels Sugar Company as a field superintendent and agricultural property manager. Subsequently, he managed grain marketing and storage cooperative comprised of 800 farmer members in Southeastern Arizona. In one of his most recent activities, he managed and marketed the foreclosed properties for the western office of the Federal Land Bank. Mr. Zirkle is a licensed real estate broker, and has extensive training and expertise in agricultural property appraisal. Since 1995, Mr. Zirkle has worked extensively on fish passage issues. He currently manages the Lower Butte Creek Project which is a landowner driven process that brings farmers, wetland managers and resource agencies together to resolve fish passage issues along Butte Creek, a native spring-run chinook salmon spawning stream.

Proiect Responsibility

Mr. Zirkle's title is Agricultural Lands and Water Specialist. His role in this project is to manage all stakeholder related actions. Mr. Zirkle will also work with the consultants and Ducks Unlimited staff on public outreach issues.

James **R.** Well Mr. Well brings an engineering and construction background to Ducks Unlimited, Inc. (DU). Educated at North Dakota State University, earning a Bachelor of Science degree in Civil Engineering, he has spent a career working in design, construction and construction management of civil works in twelve central and western states. Mr. Well is currently employed by DU as a lead Regional Engineer for the state of California. Mr Well supervises three other engineers and manages the habitat restoration activities in California. Mr. Well can be reached by mail at Ducks Unlimited, Inc.'s Western Regional Office, located at 3074 Gold Canal Drive in Rancho Cordova, CA 95670-6116; Phone: (916)852-2000; Fax: (916)852-2200; e-mail: jwell@ducks.org

Relevant Experience

Mr. Well has spent his entire career working in construction in technical and managerial positions. Educated as a civil engineer, he spent two years in the United States Army serving in the Corps of Engineers as an engineer and platoon leader in Viet Nam. Fifteen years were spent with private construction firms in design and construction management of Highway and Heavy projects in the states of North Dakota, South Dakota, Montana, Wyoming and Utah. He was responsible for projects that included the Interstate Highway system, state highway systems, county road systems, the Garrison Diversion Project, earth filled dams, railroad subgrades, coal-fired power plant site-work, coal mine overburden removal, river erosion protection, flood control levees, subdivision site grading, water line and sewer line installation and aggregate production.

**Attachment D**

Mr. Well has been with DU for over fourteen years and during that time has had direct design and construction management responsibility for hundreds of habitat restoration projects involving thousands of acres and agreements worth millions of dollars. These projects have occurred on both private and public land and consist of survey, design, issuance of competitive or negotiated-bids for construction, construction management and coordinate funding partners, consultants, contractors, regulatory agencies, owners and other Ducks Unlimited Staff.

Project Responsibilities
Mr. Well's role and responsibility for this project is Engineer/Project Manager.

**Montgomery Watson Engineering Staff:**

**Neil W. Schild** *Mr.* Schild brings a diverse background as a Professional Agricultural Engineer to Montgomery Waston Engineering. Educated at Kansas State University, earning a Bachelor of Science degree in Agricultural Engineering, he has spent **39** years of experience in operation and maintenance of dams and water reservoirs and power generation projects.

Relevant Experience
Mr. Schild has proven his ability to provide reasonable and practicable solutions to even the most complex situations during his 20 years with the U.S. Bureau of Reclamation. His background includes design and construction of fish protection facilities, application of environmental regulations, management of water and land resources, transfer of water rights, water resource planning, project management, and administration of personnel. He was Project Manager for M&T Chico Ranch Fish Screen Facility, Gorrill Land Company Fish Screen and Ladders Project, and Banta-Carbona Irrigation District Feasibility Study.

Proiect Responsibility
Mr. Schild's role and responsibility for this project is Project Engineer/Construction Management.

**Dennis E. Dorratcague** Mr. Dorratcague is a Principal Engineer and the water resources director in Montgomery Watson's Northwest Region. He earned his M.S. in Civil Engineering at Colorado State University and a B.S. from University of Notre Dame. He is a Professional Civil Engineer in Washington, Oregon, Alaska, and California.

Relevant Experience
Mr. Dorratcague has been working in the field of hydrology and hydraulics since 1972, primarily concentrating on hydraulic structures and fisheries engineering. He has served as Technical Manager for the Banta-Carbona lrrigation District Fish Screen Feasibility Study and for the preliminary and final design for a fish screen, ladder, and tailrace barrier in Western Oregon. He also was Project Manager for the development of the Feature Design Memorandum for the Surface Bypass Spillway Project; the hydraulic modeling, preliminary and final designs, and construction services of a fish screen on the White River in Western Washington; the preliminary and final design of a fish screen facility for Pacific Power and Light Company; and the Salmon Falls Fish Passage Project.

Proiect Responsibility
Mr. Dorratcague's role and responsibility for this project is Design Engineer/Fisheries Specialist.

**Attachment " E "**

DUCKS UNLIMITED **FY 2000**

CALFED PROJECT PROPOSAL - Lower Butte Creek Project: **Facilitation/Coordination** and Sutter Bypass West Side Fisheries Modifications

able 1. . Lower Butte Creek Project: Sutter Bypass Fisheries Upgrades- annual and total budget

| | | | Subject to Overhead | | | | | | Exempt from Overhead | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | /Task | Direct Labor Hours | Salary Including FICA | Benefits @ 20% of Salary | Travel | Staff Support &Supplies | Service Contracts | Overhead (13.55% ) | Equip ment | Student Fee Remission | Total Cost |
| Year 1 | /Task 1: Upgrade E-W Weir | | | | | | $937,280 | $127,001 | | | $1,064,281 |
| | Upgrade Weir #5 | | | | | | $1,920,000 | $260,160 | | | $2,180,160 |
| | Task 2: Task 3: Upgrade Weir #3 | | | | | | $370,960 | $50,265 | | | $421,225 |
| | Proj. Mgt. | 1250 | $43,560 | $8,712 | $2,000 | $25,000 | $0 | $10,741 | | | $90,013 |
| | Task 4: Task 5:Facilitation/Coord. | 1200 | $42,9001 | $8,5801 | $2,0001 | $24,0001 | $22,500 | $13,547 | | | $113,527 |
| otal Cost Year 1 | | | $86,4601 | $17,2921 | $4,000 | $49,000 | $3,250,740 | $461,715 | $0 | $0 | $3,869,207 |
| Year2 | Task 1: Upgrade E-W Weir | | | | | | $274,320 | $37,170 | | | $311,490 |
| | Task 2: Upgrade Weir #5 | | | | | | $559,000 | $75,745 | | | $634,745 |
| | Task 3: Upgrade Weir #3 | | | | | | $108,740 | $14,734 | | | $123,474 |
| | Task 4: Proj. Mgt. | 625 | $21,630 | $4,326 | $1,000 | $12,500 | $0 | $5,346 | | | $44,802 |
| otal Cost Year 2 | | | $21,630 | $4,326 | $0 | $12,500 | $942,060 | $132,995 | $0 | $0 | $1,114,511 |
| otal Project Cost | | | $108,090 | $21,618 | $4,000 | $61,500 | $4,192,800 | $594,711 | $0 | $0 | $4,983,719 |